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10/517,991

03/02/2005

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EXAMINER

MUSSER, BARBARA J

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

12/12/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/517,991 | <b>Applicant(s)</b><br>LEVAVASSEUR, JEAN-LUC J L L |  |
|                              | <b>Examiner</b><br>Barbara J. Musser | <b>Art Unit</b><br>1791                            |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/10/05</u> . | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 22 and 36 and because they include the following reference character(s) not mentioned in the description: 62. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, it is unclear what is meant by E. For the purposes of examination, this is considered to be a measurement of the distance between the honeycomb and the septum.(paragraph [0014])

Regarding claim 10, it is unclear how the fiber glass fabric can be embedded in a resin(which is a liquid). For the purposes of examination, this is considered to require impregnating the fabric with resin. It is noted this claim is currently closed(consisting of).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3 and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Syed(U.S. Patent 6,203,656) in view of Williamson et al.(U.S. Patent 4,534,813).

Syed discloses a method for making an acoustic panel by stacking a porous acoustic skin(Col. 2, ll. 29), a primary honeycomb(16), a multi-perforated septum(Col. 2, ll. 60-62) which can be made of fiberglass impregnated with resin(Col. 3, ll. 43-45), a secondary honeycomb(18), and an impermeable skin(24) on a mold, applying transverse pressure(Col. 3, ll. 17-20), and curing them to bond them together in the desired shape. The reference does not disclose forming the septum by applying separate parts to the honeycomb on the mold such that they abut each other so as to

approximate the final shape. Williamson et al. discloses forming a complex curvature to a fabric(Col. 1, ll. 12-13) by mapping the surface and cutting several shapes which are pieced together abutting to form the final shape.(Abstract) It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the septum of Syed from multiple parts which are applied to the surface of the honeycomb so that the septum would accurately fix the complex curvature of the article.(Col. 1, ll. 12-14, 44-47) While Syed does not explicitly disclose the porous acoustic skin is perforated, one in the art would appreciate that since the skin is porous, it effectively has a multitude of holes. Additionally, the reference indicates skin has a conventional configuration(Col. 2, ll. 30), and since such skins are conventionally perforated, it would be perforated. As to the error E, one in the art would appreciate that since creases would not be desirable, one in the art would appreciate that a minimum distance between the septum and honeycomb would be desired and would use the appropriate number of septum sections to insure this.

Regarding claim 2, one in the art would appreciate that the least number of septum pieces would be used.

Regarding claim 7, Syed discloses the septum can be pre-perforated(Col. 2, ll. 66)

Regarding claim 9, one in the art would appreciate that the septum could be perforated before or after cutting to the desired shapes, and these are obvious alternatives in the art. Additionally, it would have been obvious to one of ordinary skill in

the art at the time the invention was made to perforate after cutting since perforations would not be made in areas which would later be discarded as scrap.

Regarding claim 10, Syed discloses the septum is fiber reinforced material in a resin matrix.(Col. 3, ll. 43-44) It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the septum of glass fiber fabric impregnated with resin since this would be an easy way to include fiberglass reinforcement as is known in the art and to use epoxy since epoxy is a well-known and conventional curable resin for use in pre-pregs.

6. Claims 1 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Syed and Williamson et al.

The admitted prior art discloses a method for making an acoustic panel by stacking a multi-perforated acoustic skin, a primary honeycomb, a multi-perforated septum made of fabric impregnated with resin, a secondary honeycomb, and an impermeable skin together(Pg. 2, ll. 35- Pg. 3, ll. 11) The reference does not disclose the exact curing process. Syed discloses layering the material up on a mold, applying transverse pressure(Col. 3, ll. 17-20), and curing them to bond them together in the desired shape. The reference does not disclose forming the septum by applying separate parts to the honeycomb on the mold such that they abut each other so as to approximate the final shape. Williamson et al. discloses forming a complex curvature to a fabric(Col. 1, ll. 12-13) by mapping the surface and cutting several shapes which are pieced together abutting to form the final shape.(Abstract) It would have been obvious to one of ordinary skill in the art at the time the invention was made to lay everything up

on the mold to form the final product since Syed discloses making a similar product using a mold and to make the septum of the admitted prior art from multiple parts which are applied to the surface of the honeycomb so that the septum would accurately fix the complex curvature of the article. (Col. 1, ll. 12-14, 44-47) As to the error E, one in the art would appreciate that since creases would not be desirable, one in the art would appreciate that a minimum distance between the septum and honeycomb would be desired and would use the appropriate number of septum sections to insure this.

Regarding claim 4, while the references do not disclose the septum is coated with adhesive, one in the art would appreciate that since multiple parts are being laid up on a surface, the parts could move relative to one another. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use an adhesive on the septum of the admitted prior art, Syed, and Williamson et al. to keep the septum parts in place relative to one another when they are placed on the honeycomb and to make the adhesive have strength the moment it contacts the honeycomb to keep the parts from moving relative to one another.

Regarding claim 5, one in the art would appreciate that the adhesive would allow movement of the parts after placement to allow them to be shifted to best fit the honeycomb so as to cover the most surface of the honeycomb.

Regarding claim 6, since the holes in the septum as intended to remain open, one in the art would appreciate that they would be checked for blockage by the adhesive prior to assembly.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara J. Musser whose telephone number is (571) 272-1222. The examiner can normally be reached on Monday-Thursday; alternate Fridays.

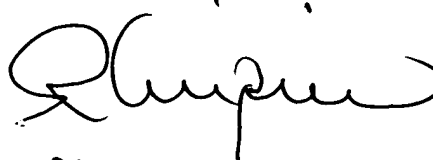
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571)-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



BJM

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